

First ISCCP Regional
Experiment (FIRE) Marine
Stratocumulus National
Oceanic and
Atmospheric
Administration (NOAA)
Langley DAAC Data Set
Document



Summary:

The First ISCCP Regional Experiments have been designed to improve data products and cloud/radiation parameterizations used in general circulation models (GCMs). Specifically, the goals of FIRE are (1) to improve the basic understanding of the interaction of physical processes in determining life cycles of cirrus and marine stratocumulus systems and the radiative properties of these clouds during their life cycles and (2) to investigate the interrelationships between the ISCCP data, GCM parameterizations, and higher space and time resolution cloud data.

To-date, four intensive field-observation periods were planned and executed: a cirrus IFO (October 13 - November 2, 1986); a marine stratocumulus IFO off the southwestern coast of California (June 29 - July 20, 1987); a second cirrus IFO in southeastern Kansas (November 13 - December 7, 1991); and a second marine stratocumulus IFO in the eastern North Atlantic Ocean (June 1 - June 28, 1992). Each mission combined coordinated satellite, airborne, and surface observations with modeling studies to investigate the cloud properties and physical processes of the cloud systems.

This docoument provides information for the FIRE_MS_NOAAWNDS data set.

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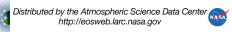
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1. Data Set Overview:

Data Set Identification:

FIRE_MS_NOAAWNDS:

First ISCCP Regional Experiment (FIRE) Marine Stratocumulus National Oceanic and Atmospheric Administration (NOAA) Wind Profiler Data (FIRE_MS_NOAAWNDS)



Data Set Introduction:

There are three types of NOAA wind profiler data, all have been splined to a 25-meter vertical resolution and a 1-hour temporal resolution. Parameters include potential temperature derived from the CLASS (CSU, Steve Cox) radiosonde (100 to 2300 M above sea level), smoothed merged Pennsylvania State University (PSU) sodar and profiler wind speeds and directions (300 to 2075 M above sea level) and derived Richardson Numbers from these data (325-2050 M MSL).

Objective/Purpose	O	bie	ctiv	/e/F	uri	pa	se	•
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Summary of Parameters:

Height Richardson Number Temperature Wind Direction Wind Speed

Discussion:

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Related Data Sets:

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2. Investigator(s):

Investigator(s) Name and Title:

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Title of Investigation:

First ISCCP Regional Experiment (FIRE)

Contact Information:

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Phone: (814) 863-2473 FAX: (814) 865-3663 E-mail: syrett@essc.psu.edu

3. Theory of Measurements:

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4. Equipment:

Sensor/Instrument Description:

Collection Environment:

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Source/Platform:

GROUND STATION

Source/Platform Mission Objectives:
Key Variables:
Height Richardson Number Temperature Wind Direction Wind Speed
Principles of Operation:
Sensor/Instrument Measurement Geometry:

Manufacturer of Sensor/Instrument:
Sensor/Instrument:
RADIOSONDE SODAR WIND PROFILER
Calibration:
Specifications:
•••
Tolerance:

Frequency of Calibration:

Other Calibration Information:
•••
5. Data Acquisition Methods:
6. Observations:
Data Notes:
Field Notes:

7. Data Description:
Spatial Characteristics:

Spatial Coverage:

Data Set Name	Min Lat	Max Lat	Min Lon	Max Lon	_
FIRE_MS_NOAA WNDS	33.50	33.50	-119.60	-119.60	_
Spatial Coverage	Мар:				
Spatial Resolution	n:				
Projection:					
Grid Description:					
Temporal Cha					
Temporal Covera	ge:				
Data Set Name	Begin Da	te	End Date		
FIRE_MS_NOAAV	WNDS 07-01-198	37	07-20-1987		
Temporal Covera	ge Map:				
· ·					
Temporal Resolut	tion:				
Data Characte	ristics:				
Parameter/Variab	le:				
/ariable Descript	ion/Definition:				
Jnit of Measurem	ent:				
Data Source:					
Data Range:					

Sample Data Record:

Distributed by the Atmospheric Science Data Center http://eosweb.larc.nasa.gov

8. Data Organization: **Data Granularity:** A general description of data granularity as it applies to the IMS appears in the **EOSDIS Glossary**. Each granule consists of one day of data. **Data Format:** The data are in native binary format. 9. Data Manipulations: Formulae: **Derivation Techniques and Algorithms: Data Processing Sequence: Processing Steps: Processing Changes: Calculations: Special Corrections/Adjustments: Calculated Variables: Graphs and Plots:** Images are not available for this data set. 10. Errors: **Sources of Error: Quality Assessment: Data Validation by Source: Confidence Level/Accuracy Judgement: Measurement Error for Parameters:**

Additional Quality Assessments:

Data Verification by Data Center:



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11. Notes:

Limitations of the Data:

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Known Problems with the Data:

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Usage Guidance:

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Any Other Relevant Information about the Study:

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12. Application of the Data Set:

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13. Future Modifications and Plans:

There are no plans to modify these data sets.

14. Software:

Software Description:

Sample read software is available for this data set.

Software Access:

The software can be obtained through the Langley DAAC. Please refer to the contact information below. The software can also be obtained at the same time the user is ordering this data set.

15. Data Access:

Contact Information:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D Hampton, Virginia 23681-2199 USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov

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Procedures for Obtaining Data:

The Langley DAAC Information Management System (IMS) is an on-line system that features a graphical user interface (GUI) that allows to query the Langley DAAC dataset holdings, to view pre-generated browse products, and to order specific data products. Users may also request data by letter, telephone, electronic mail (INTERNET), or personal visit.

The Langley DAAC User and Data Services (UDS) staff provides technical and operational support for users ordering data. The Langley DAAC Handbook is available in a postscript file through the IMS for users who want detailed information about the Langley DAAC holdings. Users may also obtain a copy by contacting:

Langley DAAC User and Data Services Office NASA Langley Research Center Mail Stop 157D Hampton, Virginia 23681-2199 USA

Telephone: (757) 864-8656 FAX: (757) 864-8807

E-mail: support-asdc@earthdata.nasa.gov

URL: http://eosweb.larc.nasa.gov

Data Center Status/Plans:

The Langley DAAC will continue to archive this data. There are no plans to reprocess.

16. Output Products and Availability:

There are no output products available at this time.

17. References:

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18. Glossary of Terms:

EOSDIS Glossary.

19. List of Acronyms:

NASA - National Aeronautics Space Administration URL - Uniform Resource Locator

EOSDIS Acronyms.

20. Document Information:

Document Revision Date:

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Document Curator:

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